

**Emergency evacuation of Airbus A380:
Preparing passengers (mentally) for evacuation.**

Paper prepared for the International Aircraft Fire and Cabin Safety Research Conference,
October 22-25, 2001, Atlantic City

Helmut Jungermann¹, Lisa Behrendt², and Katrin Fischer¹

¹ Technische Universität, Berlin,

² Deutsches Zentrum für Luft- und Raumfahrt (DLR), Hamburg

A new aircraft is being developed that has two levels, the A380. The height of the door sill on the upper deck will be around 8 m. It is an open question whether evacuation from the upper deck will take more time than evacuation from the main deck. So far, research has focused on the possibility of an increased hesitation time at the exit due to passengers' anxiety when they realize the height. Two other factors may also influence the egress time: Potential jams at the bottom of slides and their effects on passengers standing at the exit, and potential jams in the cabin due to passengers' insecurity regarding the appropriate jumping behavior.

The present paper is concerned with the last issue that we examined as part of a project carried out for DaimlerChrysler Aerospace GmbH in Hamburg. Verbal reports provide evidence that passengers, when called to evacuate, may feel not only anxious but also very insecure because they have never in their lives performed a jump from such a height and in the particular manner required. This unfamiliarity might cause passengers to hesitate, for instance by letting others go and jump first and thus causing jams in the aisles.

An evacuation delay could be reduced if passengers were mentally well prepared for the unfamiliar jumping behavior. To this effect, a video clip was produced that demonstrates the appropriate behavior in slow motion accompanied by a few precise instructions. This video will be presented and possibilities for testing its effects will be explored.